A Comparative Analysis on User Satisfaction in Closed and Open Office Buildings: Case Study of Some Selected Buildings in Abuja

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A B S T R A C T

Many organizations and industries around the world have their own preference of office type base on the nature of services to be rendered. Office building without employee's satisfaction can adversely affect their performances at their places of work. Open office is an office that has large open space with no partitionable walls but providing workstation for each employee within the open space while close office is the type with solid walls or frames as partitions with doors which open to each office. It is in the light of this that the design of office becomes imperative to both employers and architects. The aim of this study is to investigate user satisfaction and preferences in office buildings, in other to proffer appropriate design suggestion and recommendation that can be used when providing office to employees. A survey is adopted through the aid of administredquestionnaire to respondents, and the results are therefore analysed using simple statistical tool. Findings from the study reveals users satisfaction and preference for open office layout, it further reveals efficiency in users productivity due to its effectiveness in communication, kwnoledge sharing, space saving, cost saving and flexibility in managerial activities. The study therefore creates a correlation between findings conducted by other researchers over the years concerningthe provision of office for employees their preference andsatisfaction for open office buildings.

1. Introduction

An office or office building, is represented as an office block and a business center. Office buildings are known with different forms, and are characterized as buildings that contains mainly designed spaces used for offices (Brookes & Kaplan, 1972). The primary purpose of an office is to provide a workplace and working environment primarily for administrative and managerial activities (Wineman, 1986).In the words of office design consultant and author Francis Duffy, "The office building is one of the great icons of the twentieth century. Office buildings and towers dominate the skylines of cities in every continent and are represented as the most visible index of economic activity, social, technological, and financial progress, they have come to symbolize much of what this century has been about." (Peponis et al., 2007).

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Office building as described by Brill (1984), is the most tangible reflection of a profound change in employment patterns that has occurred over the last one hundred years. In present-day America, northern Europe, and Japan, at least 50 percent of the working population is employed in office settings as compared to 5 percent of the population at the beginning of the 20th century. Office architecture has undergone many interconnected phases and have withstood both discontinuity and inconsistencies. Influences from the past can be found in contemporary office designs just as Prevailing political and social conditions as well as the development of technology further explains changes in the form and use of office spaces (Wineman, 1982).

Through successive trajection in office design, concepts and high performance Moore et al., (1985), describes an office as a space which is capable of offering both owners and users increased working satisfaction, productivity, improved health, greater flexibility, enhanced energy and environmental performance that is safe, healthy, comfortable and aesthetically pleasing. The Concepts towards office designs are every day evolving and office spaces are becoming layout set to induce interaction and face-to-face knowledge and information exchange Abuja being the capital of Nigeria, is embraced with lots of office buildings, most of the office buildings have various design patterns and concepts (Wineman, 1986). Office buildings in Abuja tend to symbolize the dominance of work force as they reflect in the efficiency and growth of economic activity, social, technological, and financial progress. However a comparative study on user satisfaction in closed and open office buildings is Abuja will further throw more light on the dominance of office design patterns and concepts, as well as preference and satisfaction for office building types.

2. Methodology

In a bid to actualize the comparative study between closed and open office layout, the study tend to adopt a qualitative approach. The approach is however much appropriate for the study and thus was effectively used to investigate, analyse and evaluate user satisfaction in closed and open office buildings. The total of 100 structured questionnaires were formulated and randomly distributed amongst respondents (staff) of Airtell call office premised in Abuja which operate an open plan office settings and the federal secretariate office which operate a close office plan settings. The derived and retrieved data is quantitatively analysed using Statistical Package for Social Science (SPSS) software program. However descriptive statistics is further used to summarize and evaluate the data based on the results obtained from participants of the study.

3. Literature Review
3.1. Results and Discussions

From the questionnaire administered to open plan office users in Airtel call centre Abuja, twenty five of the questionnaire were returned out of the thirty administerd to respondents, while one hundred questionnaire were administered to open office users with eighty five returned.They are to chose from the following options on how they feel about their office wheither poor, good, very good or excellent. Questions asked were how satisfied they are in their own office, how effective is their communication within group, interaction with colleague, visual privacy in their office and acoustical privacy.

3.2. Satisfaction with own office

Satisfaction in an office is relative to individual. However, it shows how happy or contented an employee is in his place of work or work station, his views on office setting ranging from furniture arrangement, types of furniture, size and shape of the office. The figure below shows the states of satisfaction with own office in open and closed office. The figure shows that 40% of open office users are satisfied with their own office against the 12% percentage of the users who rate their satisfaction with own office as being poor. Greater percentage of the respondent are satisfied because it allow them to learn from their colleagues while 47.1% of the close office users are not satisfied with own office because it does not allow them to interact well with their colleagues.
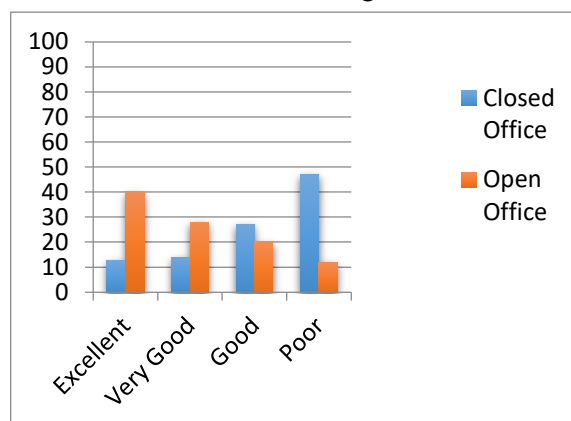

Figure 1. *Satisfaction with own office Source: (Author, 2012).*

3.4. Communication within group in office
The effectiveness of information gathering and dissemination depends on how closely employees are to each other in their places of work Oneil, (2008). and help in managing the day to day activities in the office, its increases efficiency and effectiveness of the staff, allow room for easy feed back on issues that needs promt attention, hence help in achieving the organizational goals and objective within a limited frame of time. The figure below shows the percentages of how the rate communication within a group in an office.
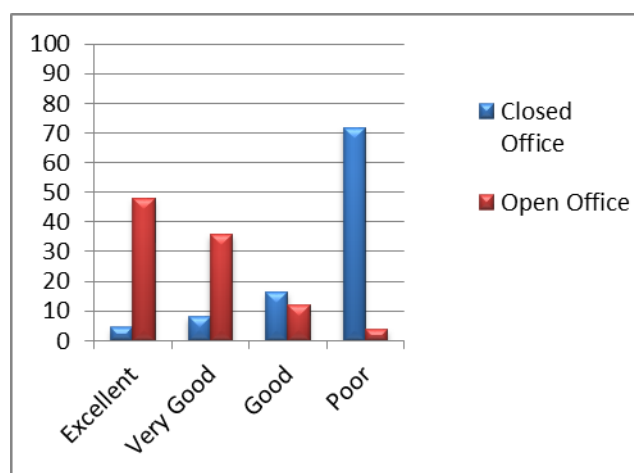

Figure 2. Level of communication of employees within a group. Source:(Author, 2012).

The figure above showed that 70.1% percentage of close office users opined communication within a group is very poor because of the barrier created by partition walls which separate them from each other while 48% percentage of open office users said communication with colleagues is excellent because they are closely seated together in an open space without any form of barrier separating them from their colleagues.From this we can deduce that workers relate with each other better in open office than in closed office.

3.3. Interaction with colleagues in office
Study conducted by Robert, (2008) on users satisfaction in open office layout revealed that employees that work in open office interact with their colleagues and are more flexible with their superior than those who work in close office environment, this is because information are share among all the staff inrespective of status in the office, however that those not means that subordinate look down or disrespect their supervisor or superior but relationship is cordial among all members of

staff, interaction enhances good relationship and reduces rate at which employees keep grudges against one another thereby reduces rate of fighting or having misunderstanding among them. The figure below shows the level of interaction among employees in open and closed office buildings.
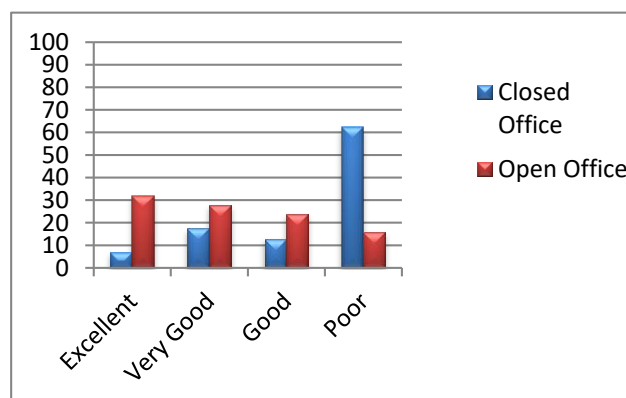

Figure 3. Level of interraction with colleagues in closed and open office. Source: (Author, 2012).

From the figure above 32% of open office users said interaction with collegues is excellent because the employees are always together in one place while 12% percentage are of the pinion that interraction is very poor possibility because they do not often agree on some issues. 62.4% of the respondent in closed office rate interaction with colleagues as poor because the staff are staying in their own office and it will be cumbersome for them to be moving from one office to the other.

3.5. Visual privacy of the office environment
Serene view of the surrounding help in reducing stress in an office environment, however this depends on the quality of landscape employed on the surrounding.Soft landscaping elements like flowers, shrubs, lawns, vegetations, water bodies, rocks and treess gives the building a sence of nature. Yildirim, (2007). In open office, its become difficult for all employees to have a look at this nature and sky view because majority of the sitting arrangement are within the centre of the office while the remaining ones at the edge are limited, who have this rear opportunity of sky view and landscape elements. While in close office every employee have the oppurtunity of looking out through their windows when ever they are tired of work to feel relief from stress not only that but their efficiency and performance in office increases, that way close office plan has more visual privacy than open office plan.The   figure   below   shows   the

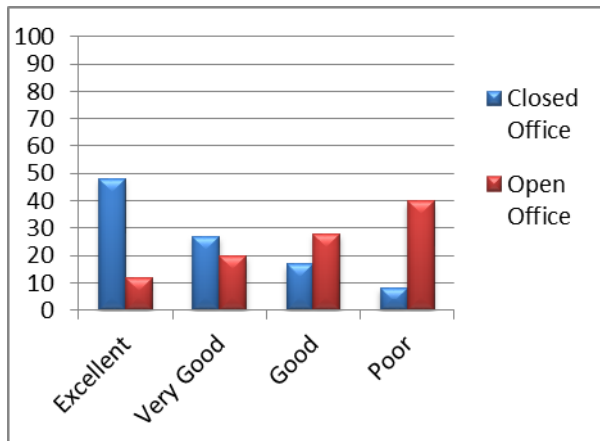reaction of employees to visual privacy of their environment.

Figure 4. Level of interraction with colleagues in closed and open office. Source: (Author, 2012).

One advantages of closed office to open office is out door view of the office environment as can be seen in the figure above 48.2% of the respodent said visual privacy is excellent as agaaist the 12% of open office users who said out door view of their office environment is excellent, this is because they are restricted in one open space with on a few number that have their work station located along the window side while most of them have their work station station far from the window and door which do not allow them to have a sky view.

3.6. Acoustical quality of the office

Noise reduction is a major consideration that one has to take when ever a design is being proposed. Perceived individual privacy facilitate and enhances the desired activities within a confine space Barett, (2002). Most people desire to work alone in an office hence prefer close office layout plan compare to open office plan, its is essential since the nature and type of work they do strongly influences their choice of office type. For example an architect, medical doctor, nurse, pharmacy, lawyer, and computer programmer whose work required a lot of concentration and thinking prefer to work in an open office environment when compare to system analysis, banker, broker, social welfare workers whose work require interaction among them for easy sharing of informations.This can be reduce when designing for ceilings, walls, and floors by replacing them with acoustical materials to reduce the noise in design of close office. The figure below showed the acoustic quality of open closed office.
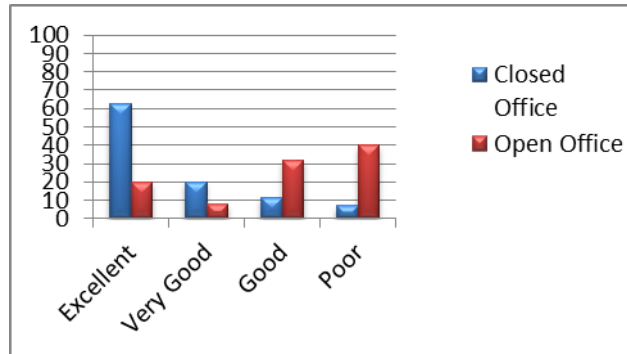

Figure 5. Acoustical quality of open and closed office. Source: (Author, 2012).

From the figure above 61.2% of closed office users said acoustical quality of their office is excellent while 20% of the open office users said is excellent, also 40% of the close office users said acoustical quality of their office is poor against the 7.1% in closed office, this could have been to attributed to the fact them in open office employees are much and there is high tendency of noise among colleagues when compare to closed office were employees are few.

Plate 1. Acoustical quality of open and closed office. Source: (Author, 2012).

The picture above shows workers in an open office layout. Each worker with his own work station separated from his colleague by his desk, chair, computer and their accessories on his table.Here all workers can view each other since they all operate in an open space hence supervision of workers performances becomes easier by their superior.
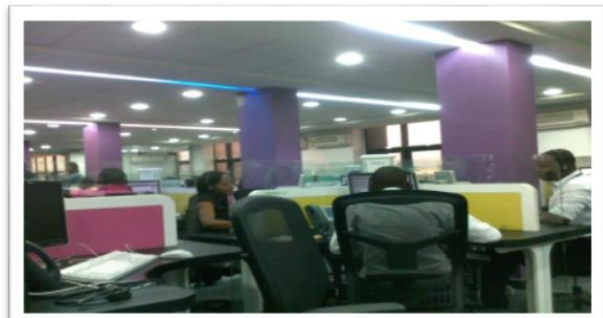

Plate 2. Acoustical quality of open and closed office. Source: (Author, 2012).

The picture above shows the an employee workspace provided for him in an open office which he controls as his own domain.He is separated from his colleagues by glass frame.

4. Recommendations and Conclusions

Previous studies have documented that open office layouts increase interaction and communication between employees. However, such layouts can also increase visual and noise distractions, reduce perceived privacy and hinder employees' ability to concentrate on their job tasks when needed. It appears that the open and closed offices have benefits and drawbacks. An assessment of the organizational goals, group objectives and individual responsibilities is needed to decide the right mix of open and closed spaces for a given work area. Sit-stand adjustable furniture that promotes postural changes and body activity can improve employees' perceived energy level and mood state after a day's work.

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